

**VARIABLE GAIN LOW-PASS FILTER**

**ABSTRACT OF THE DISCLOSURE**

- 5 A low-pass filter with a variable gain comprising a transconductance differential amplifier stage comprising a differential input and a differential output, the latter receiving a passive circuit, such as a first-order RC filter, in order to realize low-pass filtering of the amplifier stage. The filter is chosen so that the cut-off frequency is below the frequency range to be treated. The filter further comprises a control element
- 10 controlling the differential amplifier stage's bias point to allow control of the gain associated to filtering. Thus, low-pass filtering associated to a variable gain can be realized in a very simple way. The circuit is perfectly adapted for incorporation into a semiconductor product.

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